FRANKLIN BURN SITE

NEW JERSEY

EPA ID# NJD986570992

EPA REGION 2
CONGRESSIONAL DIST. 02
Gloucester County
Franklin Twp

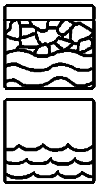
Site Description

The Franklin Burn Site consists of seven separate parcels of land, referred to as Subsites 1 through 7. All subsites are within an area approximately one square mile in size, located in Franklin Township, Gloucester County in the State of New Jersey. Fires were set at each site to burn away the plastic coatings from insulated wire and other electrical components for the recovery and sale of copper. The burning operations resulted in the generation of ash piles containing hazardous substances. Site burning activities are reported to have ceased in 1988 and have remained inactive since that time.

Site Responsibility: This site is being addressed through Federal actions

NPL LISTING HISTORY
Proposed Date: 10/02/95
Final Date: 6/17/96

Threats and Contaminants



In general, the ash piles were found to contain high levels of metals. In addition to the metals, some ash piles also contained low levels of one or more of the following: pesticides, polychlorinated biphenyls (PCBs), polychlorinated dibenzo-dioxins (dioxins), polychlorinated dibenzofurans (furans) and organics.

In September 1992, the EPA's Environmental Response Team (ERT) conducted preliminary ground water investigations at all seven subsites using a Geoprobe to install temporary monitoring wells adjacent to and down gradient of the burn sites. Ground water samples were collected and sent to a lab for analysis. The results of the ground-water screening event conducted in September 1992 indicated the ground water in the vicinity of Subsites 1, 3 and 7 may contain low concentrations of some metals.

Cleanup Approach

This site is being addressed in two stages, initial removal actions and a longer termed remedial phase. Under the Superfund Accelerated Cleanup Model (SACM) paradigm, soil and ash removal activities were completed at all seven subsites by 1997.

Response Action Status

Removal: From September 1989 to September 1990, EPA conducted extensive investigations on Subsites 1 and 2. During that period, EPA's Removal Action Branch installed chain link fences to secure the sites and applied a soil-binding polymer to the ash to minimize the generation and migration of dust. In May 1991, EPA conducted an assessment of Subsites 1 and 2 for their potential inclusion on the National Priorities List (NPL). During the assessment of Subsites 1 and 2, four additional burn sites, now referred to as Subsites 3, 4, 5, and 6, were discovered. In July 1992, ongoing investigations identified a seventh subsite. Removal activities were initiated in September 1992 beginning with Subsite 5, as it is located directly adjacent to an occupied residence.

EPA has conducted removal actions at all subsites. Beginning in March 1993, removal activities were conducted at Subsites 1 and 2. Approximately 3,000 cubic yards of contaminated ash/soil was consolidated and stockpiled on Subsite 1. At Subsite 2, approximately 2,500 cubic yards of contaminated ash/soil was consolidated and stockpiled on-site. The consolidated ash was covered with impermeable vinyl liners to prevent rain water infiltration. These actions were necessary to minimize migration of contaminants off site, and to eliminate threat of direct contact with contaminated ash. A silt fence was installed above the stockpile area at Subsite 1 to divert surface drainage away from the contaminated soil/ash to reduce contaminant migration and soil erosion. Following the consolidation of ash, post excavation sampling of the surrounding surficial soils was conducted to determine the effectiveness of the removal activities. The results indicate that cleanup levels for target metals have been met.

In February 1993, a similar removal action was conducted at Subsite 3. Approximately 250 cubic yards of contaminated ash/soil was stockpiled on-site. A perimeter fence was installed and warning signs were posted to restrict access to the site. The results of the post excavation sampling of the surrounding surficial soils for metals indicates that cleanup levels for target metals were achieved.

The temporary on-site storage of contaminated ash/soil for Subsites 1, 2 and 3 was performed to prevent further off-site migration of contamination. The removal action at these subsites did not include the off-site disposal of the ash and contaminated soil, due to the presence of dioxins and furans and/or PCBs in concentrations that may have required special consideration when selecting treatment or disposal alternatives. EPA performed additional testing of the soil/ash piles to further characterize the material and determined that off-site disposal was appropriate. In March 1997, the removal action was re-started and it then concluded in May 1997. Over 4,100 tons of RCRA hazardous waste, 2.5 tons of RCRA/TSCA waste and 485 tons of non-regulated waste was removed from the site and disposed at approved facilities.

The removal of contaminated ash/soil at Subsites 4, 5, 6 and 7 were initiated in September 1992. A total of approximately 3,600 cubic yards of contaminated ash/soil was excavated and transported off-site for stabilization and/or landfilling at an off-site disposal facility. The results of the post

excavation soil sampling indicate that the EPA cleanup levels have been met at Subsites 4 and 7. Backfilling has been completed at Subsites 4 through 7 and the excavated areas have been revegetated. At subsites 5 and 6 it was determined that contaminants migrated to areas below the water table. During the cleanup, it was not feasible to excavate below the water table. As a result, some low level contamination remains at these subsites. This residual contamination will be addressed in EPA's ongoing Remedial Investigation (RI) of the site.

Groundwater and Soils: As part of its remedial investigation, EPA has installed ground water monitoring wells to confirm the preliminary groundwater results from previous investigations. Since there was some slight indication of contamination at Subsites 1, 3 and 7, monitoring wells were installed. Additionally, because contaminants remain below the water table at Subsites 5 and 6, EPA installed ground water monitoring wells to determine the extent to which these contaminants may be impacting the ground water quality. More monitoring wells were installed in areas where screening tests showed volatile organic compounds in the ground water. In December 1995, groundwater samples were obtained from 16 monitoring wells. In addition, 8 residential homes in the vicinity of Subsites 2, 3, 5 and 6 were also sampled. No compounds were discovered above health-based levels in the residential wells however, dioxin was found in a monitoring well taping the shallow groundwater beneath Subsite 7. Subsequent redevelopment and sampling of this monitoring well indicated no dioxins/furans above health-based benchmarks.

The RI also included sampling of surface water and sediments at subsites located along the Hayes Branch, a wetlands investigation, and additional sampling of the stockpiled contaminated ash and soil at Subsites 1, 2, and 3. Some compounds, such as methylene chloride, bis(2-Ethylhexyl)phthalate, aluminum, iron, manganese and dioxins were detected in the first round of sampling. Additional sampling confirmed the results. Ash and soil stockpiled at Subsites 1, 2, and 3 has subsequently been removed and disposed of at an off-site facility. A December 1998 re-sampling of select sediment samples in the wetland at Subsite 6 confirmed that deposition of contaminants is haphazard. No surface water was present in the wetland areas at Subsites 1, 5, and 6 during an August 1998 visual inspection or the December 1998 sediment sampling event.

To complete the data collection for the RI, additional groundwater and soils sampling events were completed at Subsite 7 in February and July of 2000. The groundwater data indicated that dioxin and furan congeners, which were a potential concern, were within acceptable limits. The soil data, which was collected to determine if copper was a concern, indicated that all values were below levels of concern with the exception of one reading which was slightly above the New Jersey ecological effects-derived soil criteria. However, if the results of this soil sampling are considered in total with other sampling events at this subsite, the levels meet the New Jersey criteria.

In September 2000, site-specific vegetation and soil sampling were conducted to determine plant uptake values for use in the human health home-grown produce pathway analysis. The data collected during this investigation indicated that risks associated with this pathway are within acceptable levels.

The Updated Risk Assessment and RI Addendum reports were submitted in March and June of 2001, respectively. In August 2001, based on the data presented in these documents and other documents found in the Administrative Record for the Site, EPA issued a Proposed Plan identifying No Further

Action as the preferred alternative for the Site. EPA expects to issue a Record of Decision for the

site this year.

Environmental Progress 

The source control actions, consolidation and/or removal of contaminated soils and fencing, have reduced or eliminated the potential for exposure to contaminated soils while the Remedial Investigation is being conducted to address the entire site.

Site Repositories

New Jersey Department Of Environmental Protection, Bureau of Site Management, 6th floor
401 East State Street Trenton, N.J. 08625

Franklin Township Public Library, 1549 Delsea Drive, Franklinville, New Jersey 08322